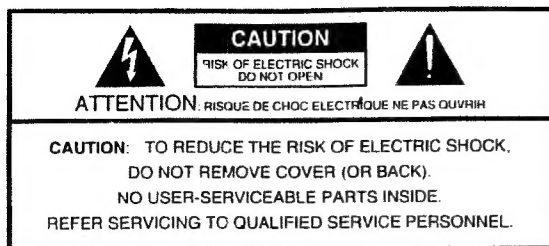


Roland

HP 147 e

Roland Digital Piano

Owner's Manual



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
8. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
9. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
10. The product should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled onto the product; or
 - C. The product has been exposed to rain; or
 - D. The product does not appear to operate normally or exhibits a marked change in performance; or
 - E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

For the USA

This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

For Canada

For Polarized Line Plug

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
ATTENTION: POUR ÉVITER LES CHOCs ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
 BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
 The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
 The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

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Roland

HP 147 e Roland Digital Piano

ENGLISH

Owner's Manual

Thank you for purchasing a Roland HP-147e Digital Piano. The HP-147e is a new model of Roland's HP series Digital Pianos. As such, it comes with all the benefits: a weighted Hammer-Action keyboard, vibrant sounds and a number of useful functions.

Authentic piano performances

High-quality concert grand piano sounds, and a keyboard that's a true pleasure to play assure an even more realistic piano-playing experience. Thanks to its Hammer-Action keyboard, the HP-147e faithfully reproduces the feel of an acoustic piano with minute control over the sound.

Captures the brilliant resonance

The sound of a grand piano has a brilliant timbre because the sound of a grand piano contains a greater amount of high-frequency components. The HP-147e reproduces this characteristic of the grand piano.

Extended high-frequency response

One of the features of an acoustic piano is that for the strings of the highest 1 1/2 octaves, there is no damper to restrict the vibration of the strings, irrespective of whether or not the damper pedal is used. Since this also allows these strings to vibrate sympathetically with other strings, they can sometimes be heard sounding independently from the low and middle-register strings.

The HP-147e faithfully simulates these characteristics of the acoustic piano (being a digital instrument, the HP-147e contains no strings).

High-quality Reverb

The HP-147e's Reverb function can add various types of reverberation (sound that is reflected off the walls of a room) to the instrument sounds.

Four Tones for a wide variety of musical genres

The HP-147e comes with four sounds (called "Tones"). That way, you can also use your instrument for playing pop, jazz, etc. music.

Before using this instrument, carefully read the sections on pages 2 and 4. They provide important information concerning the proper operation of the HP-147e.

To get the most out of the HP-147e and to ensure many years of trouble-free service, we urge you to read through this Owner's Manual thoroughly.

To avoid confusion, let's agree to use the word "button" for all keys on the front panel, and only use "key" when referring to the HP-147e's keyboard.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices

⚠ WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

⚠	The ⚠ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
⊘	The ⊘ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
⌚	The ⌚ symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠ WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.



- Do not open (or modify in any way) the instrument, and avoid damaging the supplied power cable.



- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.



- Never use or store the unit in places that are:
Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
Damp (e.g., baths, washrooms, on wet floors); or are
Humid; or are
Exposed to rain; or are
Dusty; or are
Subject to high levels of vibration.



- Be sure to use only the power cord supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the name plate.



- Avoid damaging the power cord. Do not bend it excessively, step on it, place heavy objects on it, etc. A damaged cord can easily become a shock or fire hazard. Never use a power cord after it has been damaged.



- This unit, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist.



⚠ WARNING

- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.



- Immediately turn the power off, remove the power cord from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:



- The AC adaptor, the power-supply cord, or the plug has been damaged; or
- Objects have fallen into, or liquid has been spilled onto the unit; or
- The unit has been exposed to rain (or otherwise has become wet); or
- The unit does not appear to operate normally or exhibits a marked change in performance.

- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.



- Protect the unit from strong impact. (Do not drop it!)









- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.






- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.



CAUTION

- The unit and the power cord should be located so their location or position does not interfere with their proper ventilation. 
- Always grasp only the plug of the power cord when plugging into, or unplugging from, an outlet or this unit. 
- Whenever the unit is to remain unused for an extended period of time, disconnect the power cord. 
- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children. 
- Never climb on top of, nor place heavy objects on the unit. 
- Never handle the power cord with wet hands when plugging into, or unplugging from, an outlet or this unit. 

CAUTION

- If you need to move the instrument, take note of the precautions listed below. At least two persons are required to safely lift and move the unit. It should be handled carefully, all the while keeping it level. Make sure to have a firm grip, to protect yourself from injury and the instrument from damage. 
- Check to make sure the knob bolt securing the unit to the stand have not become loose. Fasten them again securely whenever you notice any loosening.
- Disconnect the power cord.
- Disconnect all cords coming from external devices.
- Remove the music stand.
- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 5). 
- Whenever you suspect the possibility of lightning in your area, disconnect the power cord from the outlet. 

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

For EU Countries



This product complies with the requirements of European Directive 89/336/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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Important notes

In addition to the items listed under "USING THE UNIT SAFELY" on page 2, please read and observe the following:

Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this instrument in the vicinity of such receivers.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

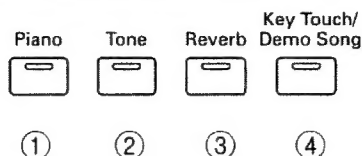
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Use a reasonable amount of care when handling the instrument and when using its jacks and connectors. Rough handling can lead to malfunctions.
- When connecting /disconnecting all cables, grasp the connector itself — never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- Be sure to put the HP-147e in the original cardboard box when you need to move it. Otherwise, use equivalent packaging materials.
- If using some other make of connection cable, please note the following precautions.
- Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

1. Button descriptions



[Power] switch (left side panel)

Turns the HP-147e's power on and off (p. 6).

① [Piano] button

Pressing this button allows you to select the HP-147e's piano sound (see page 9).

② [Tone] button

Press this button if you need another sound than the piano that is automatically selected when you switch on the HP-147e.

③ [Reverb] button

Pressing this button adds reverberation to the sound (p. 10).

④ [Key Touch/Demo Song] button

Hold down this button while pressing a key on the keyboard to start the Demo Songs playing. It can also be used for making various settings on the HP-147e.

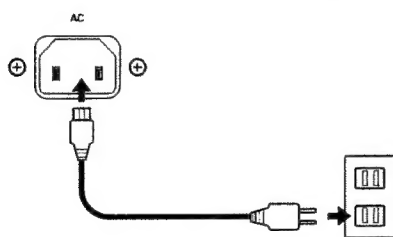
Note: The keys that are used in combination with this button can be found under "Functions assigned to the keyboard" on page 17.

2. Getting ready

Note: To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

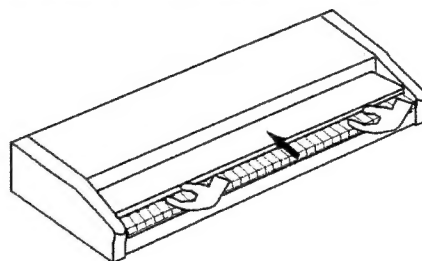
2.1 Connecting the power cord

Connect the supplied power cord to a wall outlet.



Note: Strong tension applied to the cord may cause it to be damaged or broken. Be careful not to pull the cord accidentally, or to apply strong pressure to it.

2.2 Opening and closing the lid



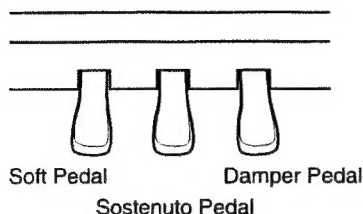
- When opening the HP-147e's lid, grasp it with both hands and gently lift it upwards, then slide it towards the back of the piano.
- When closing the lid, slowly pull the lid forward, then gently lower it into place.

Never insert your hands between the lid and the keyboard.

Note: Take care not to allow fingers to be caught or pinched when opening and closing the lid.

Note: For safety, transport the keyboard only with the lid in the closed position.

2.3 About the pedals



Soft pedal—This pedal softens the sound. Playing with the soft pedal depressed produces a sound that is not as strong as when otherwise played with the equivalent strength.

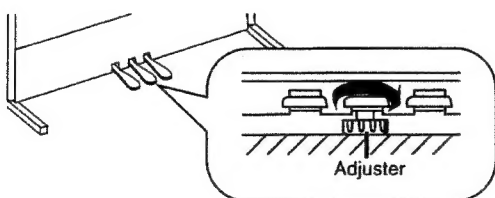
Sostenuto pedal—With the Sostenuto pedal, only the sound played at the moment the pedal is pressed is sustained.

Damper pedal—Use this pedal when you want the sound to linger. While the damper pedal is depressed, the notes you play linger on (are sustained) for an extended period, even after removing your fingers from the keys.

On acoustic pianos, when the damper pedal is depressed, additional strings are released to resonate with the sound of the keys that have been played, adding richness and breadth to the sound. The damper pedal on the HP-147e recreates this resonance when depressed. This is called "Sympathetic Resonance".

About the adjuster

After you have moved this piano, or when you feel the pedal board is unstable, lower the adjuster at the bottom of the pedal board:

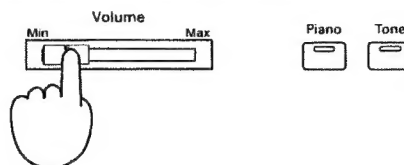


Lower the adjuster so that it is firmly in contact with the floor. If there is a gap between the adjuster and the floor, the unit may malfunction when a pedal is pressed. In particular when the instrument is placed on a carpeted floor, you must lower the adjuster so that it presses strongly against the floor.

2.4 Turning the power on and off

Your HP-147e is fitted with an amplifier and speakers so that you do not need additional devices.

1. Turn the volume all the way down.



2. Press the power switch, to turn on the power. The power switch is located on the left side panel.

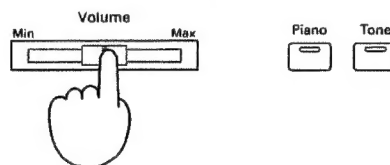
Note: Your HP-147e is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before it will operate normally.

Turning off the power

1. Turn the volume all the way down.
2. Press the power switch to turn off the power.

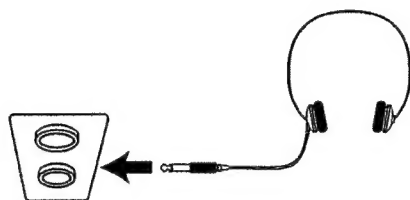
2.5 Adjusting the volume

Use the volume slider to adjust the volume.



2.6 Connecting headphones (sold separately)

The HP-147e features two headphone jacks. This allows two people to listen through headphones simultaneously, making it very useful for lessons and when performing piano pieces for four hands. Additionally, this allows you to play without having to worry about bothering others around you, even at night.



1. Turn the volume all the way down.
2. Connect the headphones to either of the headphone jacks.
3. Adjust the volume.

By connecting headphones to the HP-147e, you switch off its speakers, which is ideal for playing or practising without disturbing others.

Note: Be sure to use stereo headphones.

Note: The headphone sockets also double as audio outputs (see page 13).

Precautions to take when using headphones

To avoid damaging or severing the headphone cord, be sure to handle the headphones by holding the phones themselves, and grasping the plug and not the cord when pulling the headphone plug.

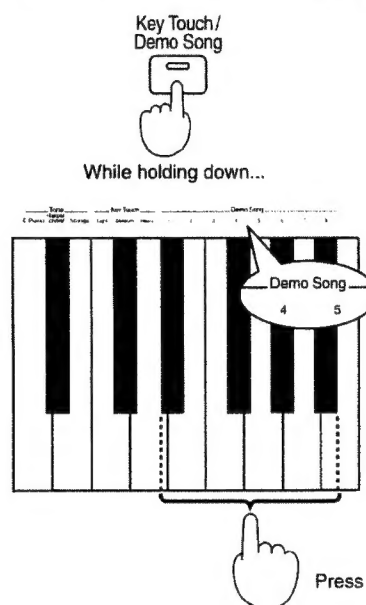
- Connecting the headphones when the volume of connected equipment is turned up may result in damage to the headphones. Connect the headphones only after turning the volume down completely.
- Listening at excessively high volume levels will not only damage the headphones, but may also cause hearing loss. Listen at appropriate levels.

2.7 Listening to the demo songs

The HP-147e features eight internal demo songs you may want to listen to before starting to play yourself.

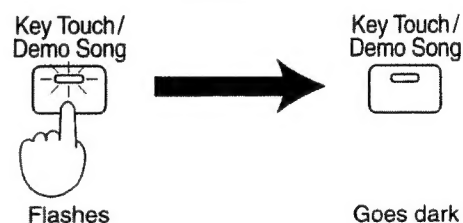
Playing/stopping the demo songs

1. While holding down the [Key Touch/Demo Song] button, press any of the keys labeled "Demo Song". The button's indicator blinks, and the song corresponding to the number pressed starts to play.



2. Press the [Key Touch/Demo Song] button to stop demo song playback.

The indicator stops blinking and goes off, and playback of the demo song stops.



Note: When one song is finished, the next song automatically begins to play. Subsequent demo songs are automatically played one after another until you stop playback.

About the demo songs

- | | |
|----------|---|
| 1 | Intro |
| | J. Maul ©1991, 1999 Roland UK |
| 2 | Bagatelle "Für Elise" WoO.59 |
| | L.v. Beethoven ©1994 Roland Corporation |
| 3 | A Maiden's Prayer |
| | T. Badarzewska ©1996 Roland Corporation |
| 4 | No.14 "La Styrienne" from 25 Etudes |
| | F. Burgmüller ©1992 Roland Corporation |
| 5 | from Cantata BWV.147 |
| | J.S. Bach / Naoki Nishi ©1993 Roland Corporation |
| 6 | Etude No.3 in E Major "Chanson de l'adieu" |
| | F. Chopin ©1992 Roland Corporation |
| 7 | Fly Free |
| | J. Maul ©1992 Roland Corporation |
| 8 | Mood / Ending |
| | J. Maul ©1991, 1999 Roland UK |

Note: All rights reserved. Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.

Note: The data of the demo songs are not transmitted to the HP-147e's MIDI OUTput.

Profiles of the composers

Naoki Nishi—Born in 1958 in Hiroshima, Japan. Began working professionally at the age of 21. Has so far released 9 albums. He has also taken part in numerous other albums. His broad range of activities have included appearances at a number of jazz festivals in Japan and other parts of the world. In addition to his duties as an instructor at the Tokyo Conservatoire Shoubi, he has provided his services as a demonstrator for Roland since 1990. He is considered to be one of Japan's finest jazz pianist.

John Maul—John Maul is a musician, composer and arranger having graduated from the Royal Academy of Music in London. John's work encompasses studio recordings and live performances, including work with top UK Jazz artists. His writing credits include commercial music for BBC radio and television, as well as scoring jazz and classical works. Having been a product specialist for Roland U.K., John is now actively involved in music software composing/programming for both Roland Japan and various music publishers. Quite recently his "Musical Picture Book", a volume of original piano music encompassing all standards of musical ability, which included the piano and orchestral accompaniment data in SMF format, was published and printed.

3. Playing your own music

3.1 Selecting sounds

The HP-147e allows you to play using four different sounds including piano. The HP-147e's sounds are called "Tones".

Selecting the Piano sound

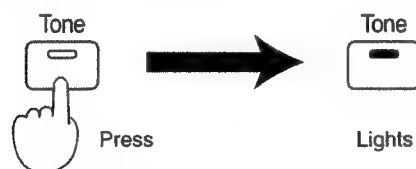
Though the piano sound is automatically selected every time you switch on the HP-147e, there may be situations (such as after using a different sound, see below) where you need to return to the Piano sound. To do so, press the [Piano] button:



Performing with other sounds

The HP-147e also includes three other tones: E.Piano (Electric Piano), Harpsichord, and Strings. You can assign any one of these three tones to the [Tone] button.

Press the [Tone] button.



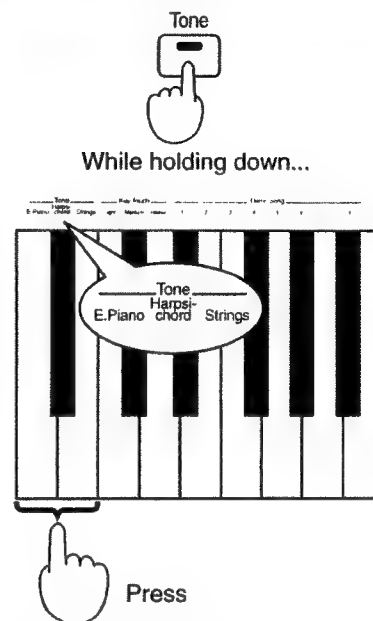
This selects the E.Piano (Electric Piano) sound that is automatically assigned to the [Tone] button whenever you switch on the HP-147e.

Assigning another sound to the [Tone] button

Any of the three Tones may be assigned to the [Tone] button. Doing so allows you to alternate between the selected Tone (by pressing [Tone]) and the Piano sound (by pressing [Piano]).

1. While holding down the [Tone] button, press the key with the name of the Tone you want to use.

The [Tone] button indicator blinks to signal that your selection has been registered.



2. After releasing the button, play the keyboard.

The button indicator stops blinking and stays on, indicating that the tone selected in Step 1 has been assigned to the [Tone] button. Playing a few notes is important to confirm your selection.

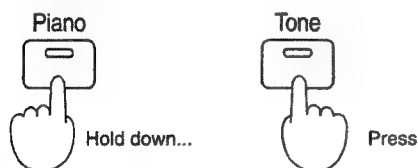
Note: You can also set the tone by pressing the blinking [Tone] button instead of playing the keyboard. If you don't want to set the tone, press the [Piano] button.

3.2 Layering two instrument sounds

The HP-147e allows you to select two sounds simultaneously so as to perform with both the Piano and Strings sounds, for example.

Example: layering the Piano and Strings Tones

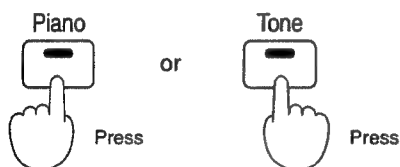
1. First, assign the Strings sound to the [Tone] button (see above).
2. While holding down the [Piano] button, press the [Tone] button.



Both button indicators light. When you play the keyboard, both the Piano and Strings Tones are layered.

Reverting to a single Tone

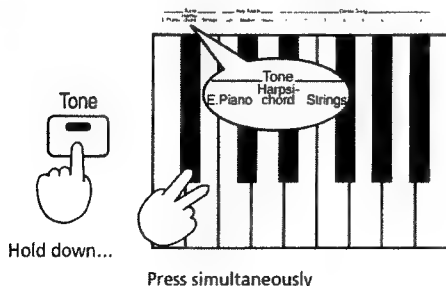
Press either the [Piano] button or the [Tone] button. Only the button indicator for the button that was pressed stays on, and only that instrument sound is produced.



Layering two "non-piano" Tones

You can perform with two Tones assigned to the [Tone] button (rather than Piano and another sound).

While holding down the [Tone] button, simultaneously press the Harpsichord and Strings keys.



Note: It is not possible to assign two sounds to the [Tone] button. Consequently, you cannot select these kinds of layers by pressing [Tone]. Whenever you press this button, the single previously assigned Tone is restored.

3.3 Adding Reverb

The HP-147e allows you to add reverberation to what you play on the keyboard. The Reverb effect provides a pleasant reverberation that gives the impression that you are performing in a concert hall or similar space.

1. Press the [Reverb] button; the button indicator lights.

Reverberation is added to the sound.



2. Press the [Reverb] button once more; the button indicator goes off, and the Reverb effect is no longer added to the sound.

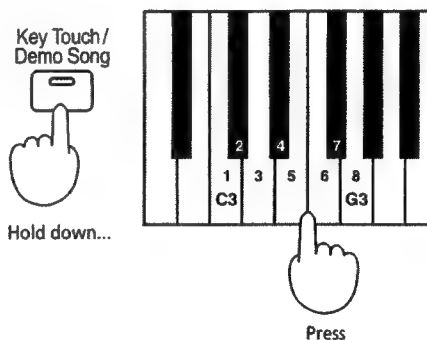
Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

Setting the Reverb level

You can also set the volume of the Reverb effect to accommodate the sound you are using. You may want to select a higher Reverb for the Strings sound (to simulate the reverberations of a concert hall) than for the piano sound.

There are eight possible Reverb level settings. At power-on, the HP-147e selects level "4".

1. Press and hold the [Key Touch/Demo Song] button.



2. While still holding the button, press a key between the C3 and the G3 to set the desired Reverb level.

Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

4. Convenient functions

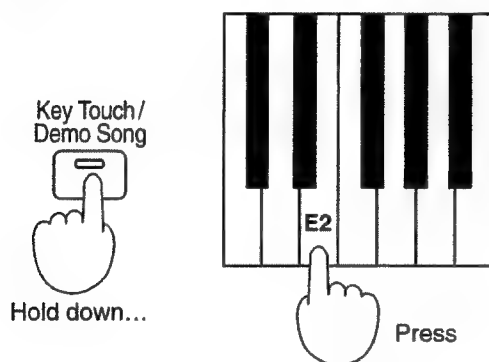
4.1 Transposing (same fingering, different notes)

You can play in a different key—without changing the keys you are playing. That way, even songs originally written in a difficult key with many \sharp (sharps) or \flat (flats) (i.e. with many black keys), can be played in a more convenient way. This is especially useful when you are used to playing a given song in one key, while someone else wants you to play it in another key: just change the Transpose setting and you're there.

The transposition remains in effect until you change it or until you switch off the HP-147e.

[Ex.] Playing in C and sounding in E

1. Press and hold the [Key Touch/Demo Song] button.
2. While still holding the button, use the C2–B2 notes to select the key. (For our example, press the second “E” from the left.)



Note: Refer to “Functions assigned to the keyboard” on page 17 for the exact keys to press.

3. To return to the previous condition, hold down the [Key Touch/Demo Song] button while pressing the C2 key.

Note: The transposition only applies to the notes you play on the HP-147e's keyboard. It does not apply to note messages received via the MIDI IN connector.

4.2 Master Tuning

In situations such as when playing in ensemble with other instruments, you can adjust the HP-147e's reference pitch to that of another instrument.

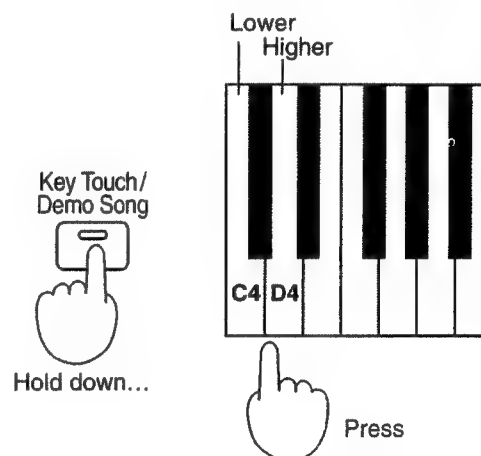
Middle A (“A4”) is generally used for tuning instruments. When playing in ensemble with other instruments, tune each instrument to the same reference pitch.

“440Hz” is the power-on default for the reference pitch.

Lowering/ raising the reference pitch

1. Press and hold the [Key Touch/Demo Song] button.
2. While still holding the button, press the “C4” note to lower the reference pitch, or the “D4” note to raise it.

Note: Refer to “Functions assigned to the keyboard” on page 17 for the exact location of the keys you need to press.

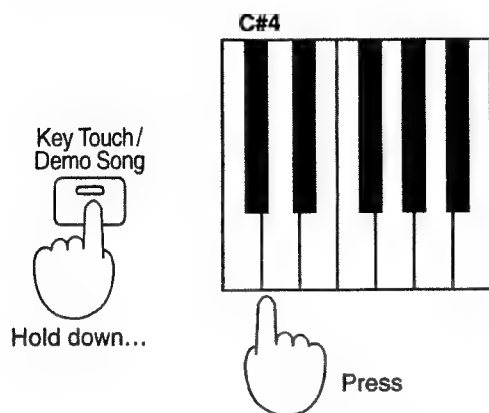


Each time you press the “C4” key, the pitch will fall by 0.1 Hz. If you continue holding the key, the pitch will continue falling.

Each time you press the “D4” key, the pitch will rise by 0.1 Hz. If you continue holding the key, the pitch will continue rising.

Returning to 440Hz

While holding down the [Key Touch/Demo Song] button, press the "C#4" key on the keyboard.



The reference pitch will be set to 440.0 Hz. This is the most commonly used setting.

Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

Setting the reference pitch to 442Hz straight away

While holding down the [Key Touch/Demo Song] button, press the "D#4" key on the keyboard. This is the black key to the right of the one shown in the above illustration.

Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

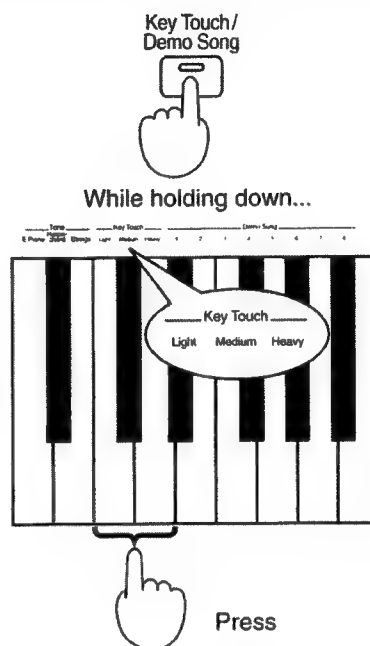
The standard pitch will be set to 442Hz. This setting is often used for concert pianos. The A4 (Middle A) key will sound at 442Hz.

4.3 Setting the key touch

Your HP-147e also provides a function that allows you to adapt it to your playing style, or to ensure that even your children can play loud notes.

There are three Key Touch levels:

1. Press and hold the [Key Touch/Demo Song] button.



2. While still holding the button, press one of the keys labeled "Key Touch" to select the desired level.

Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

Note: Though "light" may be a good settings for beginners, they should also try to get used to playing with the "Medium" setting.

Light: little strength is required to play at high volumes.

Medium: the keyboard reacts normally (similar to an acoustic piano).

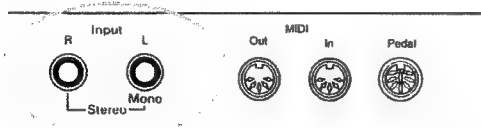
Heavy: choose this only if you usually strike with too much force and therefore play very bright/loud notes. This is also a good setting for practising purposes.

Note: At power-on, the HP-147e selects the "medium" setting.

5. Connecting to audio equipment

Read this chapter if you wish to connect the HP-147e to an audio device. Connecting the HP-147e to an audio device allows you to use an external amplifier or to record your performance onto cassette, MD or other recording media.

About the audio jacks



Input Jacks—You can use audio cables (sold separately) to connect another audio producing device to the HP-147e, and hear its sound through the speakers of the HP-147e.

Making the connections

Note: To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

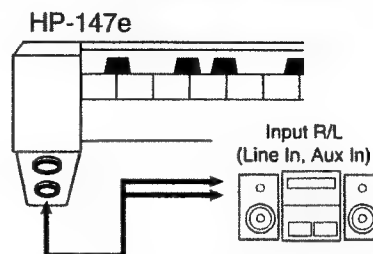
1. Turn the volume down completely on all equipment.
2. Turn off the HP-147e and any other device to be connected.
3. Use audio cables (sold separately) to connect the other device to the HP-147e.

Note: If the device you are connecting is monaural, connect it to the L (Mono) jack. In this case, connect nothing to the R jack of the HP-147e.

Use a cable from Roland to make the connection. For cable makes, please note the following: Some connection cables contain resistors. Do not use them. They can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

Once the connections have been completed, turn on power to your various devices in the order specified below. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

Using an external amplifier or recording your music with an audio device



1. Turn on the power to the HP-147e.
2. Turn on the power to the connected equipment.
3. Adjust the volume.

Recording procedure

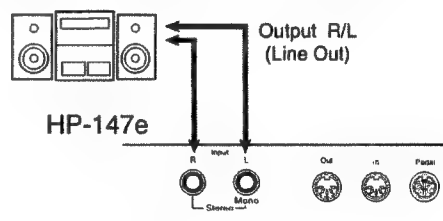
1. Connect one of the HP-147e's headphone jacks to the audio device.

This requires the use of an optional breakout cable (stereo 1/4" jack→2x RCA jacks, or 2 x 1/4" mono jacks, depending on the input types of the external device).

Note: This switches off the HP-147e's speakers.

2. Start recording on the connected audio device.
3. Begin playing on the HP-147e.
4. When you finish playing, stop recording.

Listening to the sound of an audio device through the speakers of the HP-147e



1. Turn on the power to the connected equipment.
2. Turn on the power to the HP-147e.
3. Adjust the volume.

6. Connecting to MIDI devices

Read this chapter if you wish to connect the HP-147e to an external MIDI device.

If the HP-147e is connected to a MIDI sequencer, such as one from the MT series, you can record your playing or have the external module, synthesizer, etc., reproduce the notes you play on the HP-147e's keyboard. When the HP-147e is connected to an MT series sequencer, the rich variety of sounds built into the MT can be played from the keyboard of the HP-147e.

About MIDI

MIDI, short for "Musical Instrument Digital Interface," was developed as a standard for the exchange of performance data between electronic instruments and computers.

The HP-147e is equipped with MIDI connectors to allow such exchange of performance data with external equipment and devices.

About the MIDI connectors

MIDI In connector—Use a MIDI cable (sold separately) to connect from here to the MIDI Out connector on the external MIDI device.

MIDI messages sent from connected external equipment will be received here. As a result, the HP-147e will produce sound, change tones, or perform other operations.

MIDI Out connector—Use a MIDI cable (sold separately) to connect from here to the MIDI In connector on the external MIDI device. Performance data detailing what has been played on the keyboard, and other data, such as that generated when a pedal is depressed, is sent out from here to external MIDI devices.

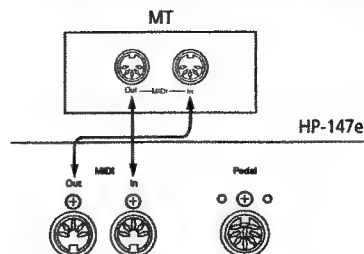
Making the connections

Note: To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.

1. Turn the volume down completely on all equipment.
 2. Switch off the HP-147e and any other devices to be connected.
 3. Use MIDI cable (sold separately) to connect the external MIDI device to the MIDI connector on the HP-147e.
- Take a look at the connection examples below.
4. You should also make the settings below as needed. For details on making MIDI-related settings for the HP-147e, refer to "Cautions when connecting an external MIDI device".

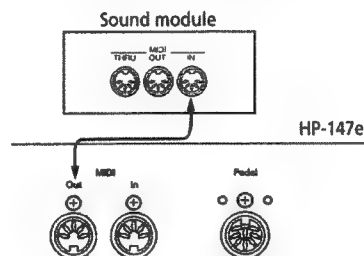
5. Turn on the power to all equipment.
6. Adjust the volume.

Connecting to a sequencer (Roland MT series)



Note: The MT-80s has no MIDI Out connector.

Connecting to a MIDI sound module

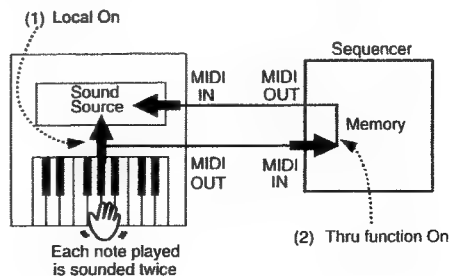


Cautions when connecting an external MIDI device

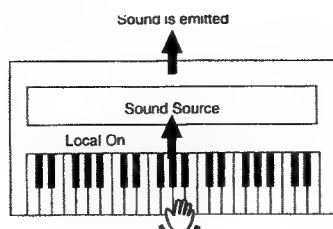
Here we will explain the "Local On/Off" and "Omni On/Off" settings that you need to be aware of when connecting the HP-147e to an external MIDI device.

Disconnecting the HP-147e's keyboard and internal sound generator—Local On/Off

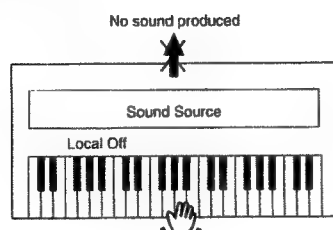
When the HP-147e is connected to a MIDI sequencer or the like, set it to Local Off. As shown in the diagram, the data that is produced when you play the keyboard will reach the sound generator by two routes, (1) and (2), causing each note to be played in duplicate. To prevent this, select the Local Off setting to cut route (1).



When Local is on:



When Local is off:

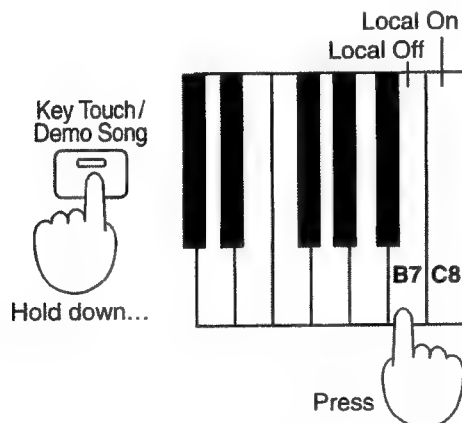


Note: Be aware that if you set your instrument to Local Off when no external MIDI device is connected, there will be no sound.

Note: Local On is set when the power is switched on.

1. Press and hold the [Key Touch/Demo Song] button.

2. While still holding the button, press the highest B key (second from the right) to set Local to off.



Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

If the HP-147e is connected to a Roland MT series (except MT-80S), it is not necessary to make the Local Off setting. When the power is turned on, the MT will transmit a Local Off message. If you first switch on the HP-147e and then the MT, the HP-147e will automatically be set to Local Off.

3. Repeat this procedure with the highest note to switch the Local function back on again.

Receiving on all MIDI channels—Omni

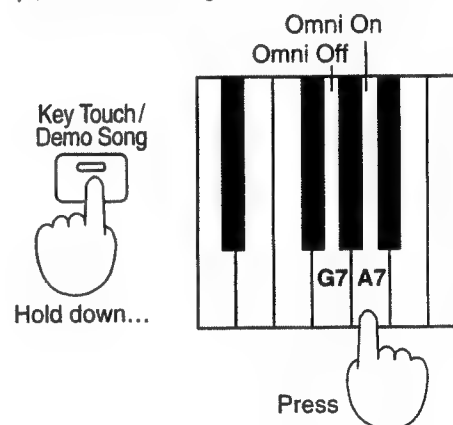
MIDI features sixteen MIDI channels, numbered 1~16. The connected devices must be set to use the same MIDI channel as the HP-147e, otherwise no sound will be produced.

When set to Omni On, the HP-147e receives on all MIDI channels, so that you do not need to set a specific one. This may be practical for playing back sequences containing piano music on different channels for the left and right hands. It should not be used, however for playing back commercial Standard MIDI Files as that will cause the HP-147e to produce so many notes that you hardly recognize the piece in question.

Omni Off is automatically set when the power is switched on.

1. Press and hold the [Key Touch/Demo Song] button.

2. While still holding the button, press the highest A key (fourth from the right) to set Omni to on.



Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

3. Repeat this procedure with the highest G key to switch the Omni function back off again.

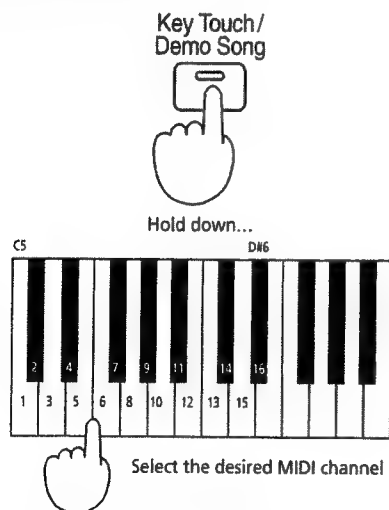
6.1 Setting the MIDI channel

MIDI features sixteen MIDI channels, numbered 1~16. The connected devices must be set to use the same MIDI channel, otherwise no sound will be produced.

- In a setup where you wish to play the HP-147e and also have another MIDI-equipped instrument or sound module play the same notes, you must set the channel used for reception on your external device to the same channel that the HP-147e uses for transmission.
- If you use another MIDI keyboard as a master instrument and want the HP-147e to play these notes, you need to set the channel used for reception on the HP-147e to the same channel that the master keyboard is transmitting on.
- If you want to use the HP-147e as tone generator for an external sequencer, select the MIDI channel assigned to the track who's data the HP-147e should play back.

Note: When the HP-147e is turned on, Channel "1" is selected.

1. Press and hold the [Key Touch/Demo Song] button.
2. While still holding the button, press the key corresponding to the desired MIDI channel (between the C5 and the D#6).



The MIDI transmit and receive channel will switch to the number that corresponds to the note you pressed.

Note: Refer to "Functions assigned to the keyboard" on page 17 for the exact location of the keys you need to press.

6.2 Sending and receiving Program Change messages

When you press the HP-147e's [Piano] button or [Tone] button to change tones, a Program Change message with the corresponding number is sent via the MIDI Out connector. Furthermore, a Program Change message received via the MIDI In connector changes the Tone to the one with the corresponding Program Number.

Switching Tones with Program Change messages

If you connect the HP-147e to an external MIDI sequencer, press the sequencer's REC button to start recording, and then press the HP-147e's [Tone] button, a Program Change message for that Tone is recorded by the sequencer. When you then play back the sequence, the HP-147e's Tone is changed in accordance with the Program Change messages recorded by the sequencer. This effectively automates Tone selection.

Program Numbers for each of the HP-147e's Tones are shown below.

Program Number	Tone
1	Piano
4	Harpsichord
6	Electric Piano
9	Strings
11	Piano + Harpsichord
13	Piano + Electric Piano
16	Piano + Strings
24	Harpsichord + Electric Piano
27	Harpsichord + Strings
34	Electric Piano + Strings

Note: Other program numbers than those listed above are ignored.

Note: 11~34 are available in Layer mode (see page 10).

7. Appendix

7.1 Troubleshooting

If you are encountering problems with the HP-147e, please read the section below before assuming that there is a malfunction.

The piano cannot be switched on

Is the power cord properly connected? (p. 5)

No sound is produced

Is the volume slider set to the minimum position? (p. 6)

Are headphones connected? (p. 7)

Is Local On/Off set to "Off"? (p. 14)

Two sounds are produced when the keyboard is played

Is the keyboard in Layer mode (see page 10)?

The pitch of the keyboard sounds incorrect

Is the Master Tuning setting correct? (p. 11)

Is the Transpose setting correct? (p. 11)

Bass notes sound wrong/buzzing or vibration occurs

If you can't hear the problem in the *headphones*:
When playing at high volumes, resonance may occur in the piano itself or in objects near the piano. At times, other objects in the room, such as fluorescent lights or glass doors, could start vibrating. This becomes more noticeable when sounding the lower frequencies at high volume. To minimize such unwanted resonance, please observe the following:

- Locate the instrument at least 10–15 cm away from the walls.
- Reduce the volume.
- Increase the distance from the object that is resonating.

If you can hear the problem in the *headphones*, there may be another reason. Please contact your dealer.

In the upper range, the sound changes abruptly beyond a certain key

On an acoustic piano, notes in the upper one and a half octaves of the keyboard continue to sound until they decay naturally, regardless of the damper pedal. There is a difference in the timbre as well. Roland pianos faithfully simulate such characteristics of the acoustic piano. On the HP-147e, the range that is unaffected by the damper pedal will change depending on the Key Transpose setting.

When the HP-147e is connected to an external device

No sound is produced

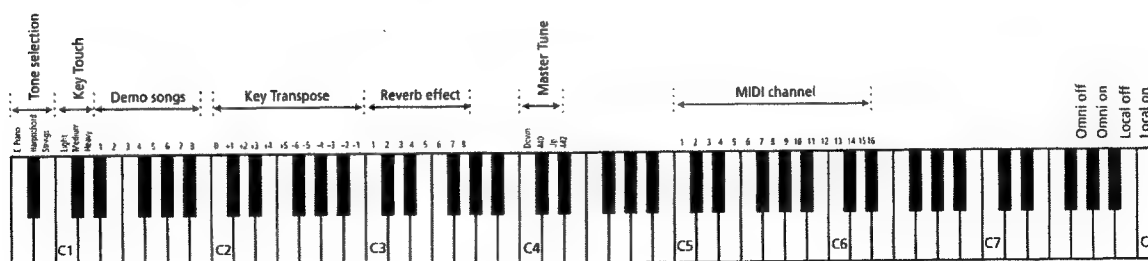
Is the power to all equipment turned on?

Are the connections between HP-147e and the MIDI sequencer or the other external devices correct? (p. 14)

Is the MIDI channel setting correct? (p. 16)

Is the Omni On/Off setting correct? (p. 15)

7.2 Functions assigned to the keyboard



8. Specifications

KEYBOARD

88 Keys, Hammer Action

SOUND SOURCE

Max. polyphony: 64 voices

4 Tones (Stereo Piano, E.Piano, Harpsichord, Strings)
with Layer possibility.

EFFECT

Reverb (8 levels)

FUNCTIONS

Master Tuning: 415.3Hz~466.2Hz (0.1Hz-steps)

Key Transpose: -6~+5 semitones

Key Touch: Light, Medium, Heavy

PEDALS

Damper, Soft, Sostenuto

OTHERS

Output power: 20W x 2

Speakers: 16cm x 2

Connectors: Pedal connector, headphone jack x 2
(stereo), MIDI In & MIDI Out connector, Input Jacks.

POWER SUPPLY

AC 117 V, AC 230 V, AC 240 V

POWER CONSUMPTION

60W (AC 117V), 45W (AC 230/240V)

DIMENSIONS (including stand)

1400 (W) x 477 (D) x 854 (H) mm

Piano: 1,392 (W) x 477 (D) x 216 (H) mm

Stand: 1400 (W) x 455 (D) x 643 (HM) mm

WEIGHT (including stand)

43.2 kg

ACCESSORIES

Owner's Manual, Power cord

Note: In the interest of product improvement, the specifications and/or appearance of this instrument are subject to change without prior notice.

For E.C. Countries

This product complies with EC directives

- LOW VOLTAGE 73/23
- EMC 89/336*

Dieses instrument entspricht folgenden EG-Verordnungen:

- NIEDRIGE SPANNUNG 73/23
- EMC 89/336*

Cet instrument est conforme aux directives CE suivantes:

- BASSE TENSION 73/23
- EMC 89/336*



Questo prodotto è conforme alle seguenti direttive CEE

- BASSA TENSIONE 73/23
- EMC 89/336*

Dit instrument beantwoordt aan de volgende EG richtlijnen:

- LAGE SPANNING 73/23
- EMC 89/336*

Este producto cumple con las siguientes directrices de la CE

- BAJO VOLTAJE 73/23
- EMC 89/336*

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

CLASS B NOTICE

This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

CLASS B AVIS

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Règlement des signaux parasites par le ministère canadien des Communications.

DIGITAL PIANO

Model HP-147e

Date : Nov. 01, 1999

Version : 1.00

MIDI Implementation Chart

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 1 - 16	1 1 - 16	
Mode	Default Messages Altered	Mode 3 x *****	Mode 3 OMNI ON/OFF	
Note Number :	True Voice	15 - 113 *****	0 - 127 15 - 113	
Velocity	Note On Note Off	O x 8n v = 64	O x	
After Touch	Key's Channel's	x x	x x	
Pitch Bend		x	x	
Control Change	6, 38 7 11 64 66 67 91 100, 101	O x x O x O O O	O O *1 O *1 O *1 O *1 O *1 O O	Data entry Volume Expression Hold 1 Sostenuto Soft Reverb RPN LSB, MSB
Prog Change	: True Number	O (0 - 33) *****	O (0 - 127) 0 - 33	
System Exclusive		O	O	
System Common	: Song Position : Song Select : Tune Request	x x x	x x x	
System Real Time	: Clock : Commands	x x	x x	
Aux Messages	: All Sound Off : Reset All Controllers : Local On/Off : All Notes Off : Active Sensing : System Reset	x x x x O x	x O O O (123 - 127) O x	
Notes	*1 These message can affect only MIDI notes.			

Mode 1 : OMNI ON, POLY

Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO

Mode 4 : OMNI OFF, MONO

O : Yes

X : No

World Distributors

Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

AFRICA

EGYPT

Al Fanny Trading Office
P.O. Box 2904,
El Horrieh Heliopolis, Cairo,
EGYPT
TEL: (02) 4185531

REUNION

Maison FO - YAM Marcel
25 Rue Jules MermanZL
Chaudron - BP79 97491
Ste Gervaise REUNION
TEL: 28 29 16

SOUTH AFRICA

That Other Music Shop (PTY) Ltd.
11 Melle Street (Cnr Melle and
Juta Street)
Braamfontein 2001
Republic of SOUTH AFRICA
TEL: (011) 403 4105

Paul Bothner (PTY) Ltd.
17 Wendmuller Centre Claremont
7700
Republic of SOUTH AFRICA

P.O. Box 22032
Claremont, Cape Town
SOUTH AFRICA, 7735
TEL: (021) 64 4030

ASIA

CHINA

**Beijing Xinghai Musical
Instruments Co., Ltd.**
6 Huangmunchang Chao Yang
District, Beijing, CHINA
TEL: (010) 6774 7491

HONG KONG

**Tom Lee Music Co., Ltd.
Service Division**
22-32 Pun Shan Street, Tsuen
Wan, New Territories,
HONG KONG
TEL: 2415 0911

INDIA

Rivera Digitec (India) Pvt. Ltd.
409, Nirman Kendra Mahalaxmi
Flats Compound Off. Dr. Edwin
Muses Road, Mumbai-400011,
INDIA
TEL: (022) 498 3079

INDONESIA

PT Citra Inti Rama
Jl. Cideng Timur No. 15J-15B
Jakarta Pusat
INDONESIA
TEL: (021) 6324170

KOREA

**Cosmos Corporation
Service Station**
261 2nd Floor Nak-Won Arcade
Jong-Ro 4u, Seoul, KOREA
TEL: (02) 742 8844

MALAYSIA

Bentley Music SDN BHD
140 & 142, Jalan Bukit Bintang
55100 Kuala Lumpur, MALAYSIA
TEL: (03) 2443333

PHILIPPINES

G.A. Yungco & Co. Inc.
339 Gil J. Puyat Avenue
Makati, Metro Manila 1200,
PHILIPPINES
TEL: (02) 899 4801

SINGAPORE

Swee Lee Company
150 Sims Drive,
SINGAPORE 387381
TEL: 748-1669

CRISTOFORI MUSIC PTE LTD
Blk 3014, Redox Industrial Park E,
#02-214R, SINGAPORE 489980
TEL: 243 9555

TAIWAN

**ROLAND TAIWAN
ENTERPRISE CO., LTD.**
Room 5, 9F, No. 112 Chung Shan
N. Road Sec. 2, Taipei, TAIWAN,
R.O.C.
TEL: (02) 2561 3339

THAILAND

Theera Music Co., Ltd.
330 Verg NakornKasem, Soi 2,
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